IN THE CLAIMS

1. (Currently amended) A method of communicating information in a wireless cellular communication system, the method comprising the steps of:

communicating information between a plurality of subscriber units of the system and a base station of the system over at least one of an uplink and a downlink; and

separating communications on the uplink from communications on the downlink by assigning, to one of the uplink and the downlink, *k* carriers in a set of M orthogonal frequency division multiplexed carriers in a given frequency band, and assigning to the other of the uplink and the downlink the remaining M-*k* carriers in the set of M orthogonal frequency division multiplexed carriers in the given frequency band, wherein adaptive duplexing between the uplink and the downlink is achievable by varying the value of *k*;

wherein communications between the base station and at least a subset of the plurality of subscriber units are separated from one another using one or more sector-specific spreading codes, each of the sector-specific spreading codes being associated with a corresponding sector of an antenna of the base station.

2. (Original) The method of claim 1 wherein the system is a fixed wireless loop system.

3. (Previously presented) The method of claim 1 further including the step of separating communications involving at least a subset of the plurality of subscriber units from one another using at least one of a code division multiple access, a time division multiple access technique and a frequency division multiple access technique.

4. (Canceled)

5. (Previously presented) The method of claim 1 further including the step of repeating the assignment of carriers for each of a plurality of time slots, such that the number of carriers assigned to the uplink and the number of carriers assigned to the downlink vary across the time slots in accordance with uplink and downlink traffic demands.

6. (Previously presented) The method of claim 1 further including the step of applying an inverse Fourier transform operation to the M orthogonal frequency division multiplexed carriers in at least one of a downlink transmitter and an uplink transmitter of the system.

7. (Previously presented) The method of claim 1 further including the step of recovering the M orthogonal frequency division multiplexed carriers by applying a Fourier transform operation in at least one of a downlink receiver and an uplink receiver of the system.

8. (Currently amended) An apparatus for communicating information in a wireless communication system, the apparatus comprising:

a base station operative to communicate with a plurality of subscriber units of the system over at least one of an uplink and a downlink, wherein communications on the uplink are separated from communications on the downlink by assigning, to one of the uplink and the downlink, *k* carriers in a set of M orthogonal frequency division multiplexed carriers in a given frequency band, and assigning to the other of the uplink and the downlink the remaining M-*k* carriers in the set of M orthogonal frequency division multiplexed carriers in the given frequency band, and wherein adaptive duplexing between the uplink and the downlink is achievable by varying the value of *k*;

wherein communications between the base station and at least a subset of the plurality of subscriber units are separated from one another using one or more sector-specific spreading codes, each of the sector-specific spreading codes being associated with a corresponding sector of an antenna of the base station.

9. (Original) The apparatus of claim 8 wherein the system is a fixed wireless loop system.

10. (Previously presented) The apparatus of claim 8 wherein communications involving at least a subset of the plurality of subscriber units are separated from one another using at least one of a code division multiple access, a time division multiple access technique and a frequency division multiple access technique.

11. (Canceled)

12. (Previously presented) The apparatus of claim 8 wherein the base station is further operative to repeat the assignment of carriers to uplink and downlink for each of a plurality of time slots, such that the number of carriers assigned to the uplink and the number of carriers assigned to the downlink vary across the time slots in accordance with uplink and downlink traffic demands.

13. (Previously presented) The apparatus of claim 8 wherein an inverse Fourier transform operation is applied to the M orthogonal frequency division multiplexed carriers in a transmitter of the system.

Cont C1

14. (Previously presented) The apparatus of claim 8 wherein a Fourier transform operation is applied to recover the M orthogonal frequency division multiplexed carriers in a receiver of the system.

15. (Currently amended) An apparatus for communicating information in a wireless communication system, the apparatus comprising:

a subscriber unit operative to communicate with a base station of the system over at least one of an uplink and a downlink, wherein communications on the uplink are separated from communications on the downlink by assigning, to one of the uplink and the downlink, *k* carriers in a set of M orthogonal frequency division multiplexed carriers in a given frequency band, and assigning to the other of the uplink and the downlink the remaining M-*k* carriers in the set of M orthogonal frequency division multiplexed carriers in the given frequency band, and wherein adaptive duplexing between the uplink and the downlink is achievable by varying the value of *k*;

wherein communications between the base station and the subscriber unit are separated from communications between the base station and at least one additional subscriber unit using one or more sector-specific spreading codes, each of the sector-specific spreading codes being associated with a corresponding sector of an antenna of the base station.

16. (Original) The apparatus of claim 15 wherein the system is a fixed wireless loop system.

17. (Previously presented) The apparatus of claim 15 wherein communications involving at least a subset of a plurality of subscriber units are separated from one another using at least one of a code division multiple access, a time division multiple access technique and a frequency division multiple access technique.

18. (Canceled)

19. (Previously presented) The apparatus of claim 15 wherein the assignment of carriers to uplink and downlink is repeated for each of a plurality of time slots, such that the number of carriers assigned to the uplink and the number of carriers assigned to the downlink vary across the time slots in accordance with uplink and downlink traffic demands.

20. (Previously presented) The apparatus of claim 15 wherein an inverse Fourier transform operation is applied to the M orthogonal frequency division multiplexed carriers in a transmitter of the system.

21. (Previously presented) The apparatus of claim 15 wherein a Fourier transform operation is applied to recover the M orthogonal frequency division multiplexed carriers in a receiver of the system.